

Remarks

The examiner's reconsideration of the application is requested in view of the claim amendments above and comments which follow.

Taking the matters raised by the examiner in turn, the requirement in numbered section 1 on page 2 of the office action for formal drawings is noted. Appropriate formal drawings will be filed when the application is allowed, and if anything further is required by the examiner, the examiner's advice would be appreciated.

In numbered section 4 of the office action, claim 12 was rejected under 35 U.S.C. §112 as being indefinite. Claim 12 has been cancelled and the issue is therefore moot.

In numbered section 6 of the Office Action, the Examiner rejects claims 14 to 20 and 30 to 35 under 35 U.S.C. §102 as being anticipated by Wax *et al*, US 6232918. It is submitted, however, that this rejection is not appropriate for the following reasons.

Wax describes a method for preparing a calibration table for calibrating an antenna array, as set out in the Summary of the Invention. Wax then describes a procedure for generating the calibration table according to a preferred embodiment in which a Acellular phone and a global positioning system (GPS) receiver are placed in a vehicle@ which moves to various locations in the area covered by the antenna. Correlation of signals received from the cellular >phone and the GPS data allows the calibration table to be generated.

The invention defined in claims 14 and 17 of the present application, against which the Wax patent has been cited, define very different systems. Claim 14 defines a method in which a radio transceiver beacon is permanently situated at a predetermined, known position at a known bearing and distance from a cell site. As described in the application from line 14 on page 34 to line 30 on page 35, the beacon functions in the same way as a mobile station for the cellular radio telecommunications system. The base station can therefore make a call to the beacon at any

desired time, in the same way as to a mobile station, and use the transmissions sent in return by the beacon as calibration signals. This method advantageously allows frequent calibration with minimal modification of the base station functionality; all that is required is that the base station stores a telephone number for setting up calls to the beacon.

This method differs significantly from the arrangement in Wax in which a mobile station and a GPS receiver are occasionally placed in a vehicle and driven to various locations. Such a labor-intensive method disadvantageously prevents frequent calibration of the antenna, which is important for good antenna performance and is enabled by the present invention.

Claim 17 of the present invention defines a method in which a transmitter beacon is located at a second cell site adjacent to the cell site where the antenna for calibration is located. Wax does not suggest that a transmitter beacon can be positioned at a second cell site and clearly it would be impossible for a mobile station placed in a vehicle to be located at a second cell site, which would typically be mounted on a pylon or a building. Claim 17 is therefore novel and not obvious in view of Wax.

The Wax patent has also been cited against independent apparatus claims 30 and 33. It is submitted that these claims are novel and not obvious in view of Wax for the same reasons as independent method claims 14 and 17 discussed above.

In section 7 of the Office Action, the Examiner has rejected claims 12, 13, 28 and 29 under 35 U.S.C. §102 as being anticipated by Graves, US 4494118. Reconsideration is requested.

In the amended claims filed herewith, claims 12 and 28 have been cancelled.

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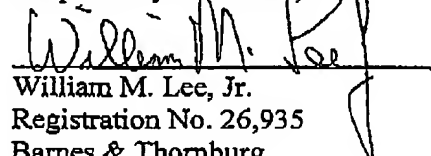
Claims 13 and 29 have been amended to emphasize that the near-field calibration source defined in the claims comprises a radio transmitter for transmitting a radio signal for reception by the antenna for calibration. Graves is only concerned with electronic coupling of signals into receiver circuitry for calibration rather than the use of a radio transmitter as a calibration source. Consequently, it is submitted that claims 13 and 29 are novel and patentable over Graves.

In the Office Action, the Examiner also raises rejections against the dependent claims. However, it is submitted that all of these should now be allowable as being dependent from allowable independent claims.

Reconsideration of this application is respectfully requested.

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Respectfully submitted,

  
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